

SDO and RHESSI Observations of Microflares

We present observations of 100 flares (B and A GOES Class) with simultaneous observations in both hard X-ray (HXR) and ultraviolet (UV/EUV) observations by RHESSI and SDO/AIA, respectively. The microflares were chosen by visually searching for time-isolated events in the available concurrent RHESSI/SDO dataset. Identifying the flare region using RHESSI imaging observations, we compare HXR (thermal and nonthermal) light curves and images with those observed by AIA in every available UV/EUV channels. Many events show complex morphologies with multiple flaring loops observed in AIA images. For the simplest event with a single flare loop, good correlation is found between the hot thermal (~ 10 MK) HXR emission and emission from 131 and 94 Angstrom and the filter-ratio derived temperatures agree with the HXR-derived temperatures during the decay phase. During the impulsive phase, footpoints emission was observed at all wavelengths with filter-ratios suggest the presence of multiple temperatures.